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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,316	06/06/2001	Jeong-Hwan Lee	06192.0168.NPUS00	6148

22930 7590 07/18/2003

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EXAMINER

ERDEM, FAZLI

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,316

Applicant(s)

LEE ET AL.

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 3-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (5,377,084) in view of Ono et al. (6,452,649) further in view of Ooi et al. (5,798,805) further in view of Nakamura et al. (5,777,804).

Regarding Claims 3-17, Kojima et al. disclose a surface illuminating apparatus which is provided with a transparent light guide plate a reflecting plate layered onto the rear surface of the light guide plate and a light diffusion plate layered onto the outer surface of the light guide plate. The light guide plate and the reflecting plate have an irregularly reflecting plate between them. Light sources are disposed at both lateral ends of the light guide plate. On the outer surface of light guide plate a light diffusion plate having a plurality of spotted projections regularly disposed which have a light condensing and diffusing function. Kojima et al. fail to disclose the required light guide, luminous flux and luminous flux in the required manner. However, Ono et al. disclose a flat surface illumination device, liquid crystal display panel and liquid crystal display device where the required light guide is disclosed. Furthermore, Ooi et al. disclose projection type display apparatus where the required flux structure is disclosed. Finally, Nakamura et al. disclose a projection-type display apparatus where the flux in the required manner is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required light guide, flux, and the flux in the required manner in Kojima et al. as taught by Ono, Ooi, and Nakamura respectively in order to have a liquid crystal display structure with better performance.

2. Claims 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (5,377,084) in view of Ono et al. (6,452,649) further in view of Ooi et al. (5,798,805) further in view of Nakamura et al. (5,777,804) further in view of Hirabayashi (6,358,759) further in view of Osaka et al. (6,023,277).

Regarding Claims 1 and 2, Kojima et al. disclose a surface illuminating apparatus which is provided with a transparent light guide plate a reflecting plate layered onto the rear surface of the light guide plate and a light diffusion plate layered onto the outer surface of the light guide plate. The light guide plate and the reflecting plate have an irregularly reflecting plate between them. Light sources are disposed at both lateral ends of the light guide plate. On the outer surface of light guide plate a light diffusion plate having a plurality of spotted projections regularly disposed which have a light condensing and diffusing function. Kojima et al. fail to disclose the required light guide, luminous flux and luminous flux in the required manner, method of and method of condensing and method of diffusing luminous flux. However, Ono et al. disclose a flat surface illumination device, liquid crystal display panel and liquid crystal display device where the required light guide is disclosed. Furthermore, Ooi et al. disclose projection type display apparatus where the required flux structure is disclosed. Nakamura et al. disclose a projection-type display apparatus where the flux in the required manner is disclosed. Hirabayashi discloses method for manufacturing electro-optical device, electro-optical device,

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and electronic equipment where the required method of condensing luminous flux is disclosed.

Finally, Osaka et al. disclose a display control apparatus and method where the required method of diffusing luminous flux is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required light guide, flux, and the flux, method of condensing luminous flux, and method of diffusing luminous flux in the required manner in Kojima et al. as taught by Ono, Ooi, Nakamura, Hirabayashi and Osaka et al. respectively in order to make a liquid crystal display structure with better performance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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July 14, 2003

NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

